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JLB CONSULTING, INC.  
c/o INTELLEVATE  
P.O. BOX 52050  
MINNEAPOLIS, MN 55402

EXAMINER

USTARIS, JOSEPH G

ART UNIT PAPER NUMBER

2623

DATE MAILED: 12/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/668,700	<b>Applicant(s)</b> KIM, JOACHIM	
	<b>Examiner</b> Joseph G. Ustaris	<b>Art Unit</b> 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7-48, 50-52, and 54-74 is/are pending in the application.  
     4a) Of the above claim(s) 73 and 74 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-48, 50-52, and 54-72 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is in response to the amendment dated 25 September 2006 in application 09/668,700.

The objection to the claim 57 and the 112, first paragraph rejection of claims 25, 27, 29, and 31 are now withdrawn in view of the amendments.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7, 9-12, 14, 16, 17, 44-48, 51, 52, 55-57, 60, and 69-72 are rejected under 35 U.S.C. 102(b) as being anticipated by Ottesen et al. (US005930493A).

Regarding claim 1, Ottesen et al. (Ottesen) discloses a multimedia server system that is utilized over a network (See column 8 lines 18-35). The multimedia server or “capture server” comprises one or more mass storage devices or “data storage device” that stores multimedia programs or “time sequenced media content” in an addressable manner. The multimedia server uses a coder or “encoder” to convert analog audio/video signals received from a broadcast channel or “media signal” into a digital format, wherein inherently the video in digital form comprises digital frames (See Fig. 4 and column 9 lines 25-67). The index parsers or “converter” then divides the compressed

digital multimedia program into a plurality of video segments or “one or more sequential media blocks”, wherein the segments contain consecutively ordered full-motion video portions or “consecutive integral number of digital frames selected from the group comprising full frames and delta frames” (e.g. the coder of the system utilizes the MPEG standard where the digital frames are selected from I-frames or full frames and P- and B-frames or delta frames) (See column 7 lines 42-65 and column 9 line 66 – column 10 line 38) and inherently the corresponding audio (See column 9 lines 25-45 and column 10 lines 45-51). The index parsers also serve the functions of the “storage manager” and “storing processor” by encoding a unique segment address to the video segments and storing the segments within the storage device so that the segments can be easily located (See column 9 line 45 – column 10 line 10). Furthermore, Ottesen discloses that the multimedia server is also the “distribution server”, where it “distributes requested media blocks from the data storage device” (See Ottesen Fig. 3, mass storage library, distribution switch, and communication channel).

Regarding claim 2, the segments are representative of a predetermined amount of full-motion video or “predetermined number of digital frames” (See Ottesen column 9 lines 30-45 and column 11 lines 39-45).

Regarding claim 3, the network is a wide-area network (See Ottesen column 8 lines 18-34).

Regarding claim 4, the network is also a “storage area network”, wherein the storage devices are located at a plurality of sites within the network (See Ottesen column 8 lines 18-34).

Regarding claim 7, the predetermined amount is either one or two seconds of full motion video or "period between 1 second and 5 minutes" (See Ottesen column 9 lines 25-45 and column 10 lines 45-65).

Claim 9 contains the limitations of claim 1 (wherein the multimedia server can receive a digital signal or "digital media signal" (See Ottesen column 10 lines 40-45)) and is analyzed as previously discussed with respect to that claim.

Claim 10 contains the limitations of claims 2 and 9 and is analyzed as previously discussed with respect to those claims.

Claim 11 contains the limitations of claims 3 and 9 and is analyzed as previously discussed with respect to those claims.

Claim 12 contains the limitations of claims 4 and 9 and is analyzed as previously discussed with respect to those claims.

Claim 14 contains the limitations of claims 7 and 10 and is analyzed as previously discussed with respect to those claims.

Claim 16 contains the limitations of claims 1 and 9 (wherein the system performs the method) and is analyzed as previously discussed with respect to those claims.

Claim 17 contains the limitations of claims 1 and 9 (wherein the system performs the method) and is analyzed as previously discussed with respect to those claims.

Regarding claim 44, inherently the "media blocks are searchable" in order to retrieve and display any selected video on demand from storage (See Ottesen Figs. 3-4; column 8 lines 18-33 column 10 lines 45-65).

Claim 45 contains the limitations of claims 9 and 44 and is analyzed as previously discussed with respect to those claims.

Regarding claim 46, the coder is a MPEG encoder (See Ottesen column 10 lines 65-67 and column 11 lines 15-20).

Regarding claim 47, the multimedia server receives multimedia programs from a broadcast channel or "broadcast channel television signal" (See Ottesen column 10 lines 40-45).

Claim 48 contains the limitations of claims 9 and 47 and is analyzed as previously discussed with respect to those claims.

Regarding claim 51, "the distribution server throttles the distribution of the blocks of media data" (See Ottesen column 13 line 63 – column 14 line 7).

Regarding claim 52, "the distribution server stitches" the video segments or "blocks of media data" together prior to distribution (See Ottesen Fig. 6; column 12 lines 6-34).

Claim 55 contains the limitations of claims 51 and 53 and is analyzed as previously discussed with respect to those claims.

Claim 56 contains the limitations of claims 52 and 53 and is analyzed as previously discussed with respect to those claims.

Regarding claim 57, "a plurality of the distribution servers adapted to distribute blocks of media data stored in the data storage device" (See Ottesen Figs. 1-3).

Claim 60 contains the limitations of claims 9 and 57 and is analyzed as previously discussed with respect to those claims.

Regarding claim 69, the network is a wide-area network or "logical network" (See Ottesen column 8 lines 18-34). Furthermore, the "data storage device and capture server are located within" the media server or "a single computer" (See Ottesen Fig. 3).

Claim 70 contains the limitations of claims 9 and 69 and is analyzed as previously discussed with respect to those claims.

Regarding claim 71, the multimedia server can arrange a sequential stream that represents a "consecutive number digital frames corresponding to a period of up to 2 hours" (See Ottesen column 14 lines 15-22).

Claim 72 contains the limitations of claims 10 and 71 and is analyzed as previously discussed with respect to those claims.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ottesen et al. (US005930493A).

Claim 13 contains the limitations of claim 9 and is analyzed as previously discussed with respect to that claim. However, Ottesen does not disclose the additional feature where the received digital media signal is an MPEG signal.

Official Notice is taken that it is well known to transmit and receive digital signals in an MPEG format. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the digital signal received by the multimedia server disclosed by Ottesen to be a MPEG signal so that the signal would be in accordance with a well known and established compression thereby ensuring greater compatibility between servers.

Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ottesen et al. (US005930493A) in view DuLac (US005899582A).

Claim 8 contains the limitations of claim 2 and is analyzed as previously discussed with respect to that claim. However, Ottesen does not disclose a system where the predetermined amount is a period of approximately 1 minute.

Ottesen suggests that the segments can represent portions of video more than one second (See column 9 lines 40-45). DuLac discloses a movie-on-demand disk storage system. Digital movies that are stored on disk are divided into one or two minute segments (See column 2 line 65 – column 3 line 7 and column 3 lines 15-26). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the index parsers of the multimedia server disclosed by Ottesen to divide the compressed video into segments representative of approximately 1 minute, as taught by DuLac, in order to reduce the seek and access time for searching segments, thus enabling the system to respond quicker to user's VCR-type control commands.



Claim 15 contains the limitations of claims 8 and 10 and is analyzed as previously discussed with respect to those claims.

Claims 18-23, 32, 33, 35-38, 40, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ottesen et al. (US005930493A) in view of Jain et al. (US006360234B2).

Claim 18 contains the limitations of claim 1 and is analyzed as previously discussed with respect to that claim. However, Ottesen does not disclose "a close caption manager" for storing "closed caption data as a text media block associated with the media blocks in the data storage device".

Jain et al. (Jain) discloses a video cataloger system that is able to store and index videos using various information from the video source. The server includes a closed caption text decoder that is able to extract and save the text of the closed caption data and associates it with the video (See Fig. 3, 6, and 7; column 4 lines 44-51 and column 6 lines 39-42). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the multimedia server disclosed by Ottesen to include "a close caption manager" for storing "closed caption data as a text media block associated with the media blocks in the data storage device", as taught by Jain, in order to enhance the capabilities of the system thereby allowing the user to locate items in a video using the closed caption data.

Regarding claim 19, when the user clicks on the closed caption text or “text media block”, it invokes the corresponding key-frames or “triggers an action based at least upon a rule” (See Jain column 13 lines 20-26).

Regarding claim 20, the closed caption text is “searchable for locating one or more media blocks” (See Jain column 2 lines 8-30).

Claim 21 contains the limitations of claims 9 and 18 and is analyzed as previously discussed with respect to those claims.

Claim 22 contains the limitations of claims 19 and 21 and is analyzed as previously discussed with respect to those claims.

Claim 23 contains the limitations of claims 20 and 21 and is analyzed as previously discussed with respect to those claims.

Claim 32 contains the limitations of claims 1 and 18 (wherein the system is able to also extract and store “searchable meta-data”, where inherently it is connected to the network via the server (See Jain Figs. 6 and 7)) and is analyzed as previously discussed with respect to those claims.

Regarding claim 33, the “meta-data identifies program information pertaining to the media data” (See Jain column 6 lines 48-67).

Regarding claim 35, Ottesen in view of Jain does not disclose “meta-data identifying mime information”.

Official Notice is taken that it is well known to include information that specifies the type of data or “mime information”. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the meta-data

disclosed by Ottesen in view of Jain to include information that specifies the type of data or "mime information" in order to increase the efficiency of the system by enabling the system to quickly identify the data type.

Regarding claim 36, the "meta-data identifies video clip information pertaining to the media data" (See Jain column 6 lines 48-67).

Claim 37 contains the limitations of claims 9 and 32 and is analyzed as previously discussed with respect to those claims.

Claim 38 contains the limitations of claims 33 and 37 and is analyzed as previously discussed with respect to those claims.

Claim 40 contains the limitations of claims 35 and 37 and is analyzed as previously discussed with respect to those claims.

Claim 41 contains the limitations of claims 36 and 37 and is analyzed as previously discussed with respect to those claims.

Claims 24-31, 50, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ottesen et al. (US005930493A) in view of Shirakawa et al. (US006539164B2).

Claim 24 contains the limitations of claim 1 and is analyzed as previously discussed with respect to that claim. However, Ottesen does not disclose that the frame with which at least one of the media blocks begins is a viewable frame.

Ottesen does disclose that the MPEG coding standard is one of many coding techniques that is used (See Ottesen column 7 lines 42-65). Shirakawa et al.

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(Shirakawa) discloses a system for recording/playback of video using MPEG standards.

The video is coded into a plurality of group of pictures (GOPs) or “plurality of media blocks” that consists of frames (See Figs. 1a and 43). Each GOP begins with an intra-frame (I-frame) or “viewable frame” (See Figs. 1a and 43; column 24 lines 22-37 and column 25 line 30 – column 26 line 30). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify each of the video segments disclosed by Ottesen to begin with a “viewable frame”, as taught by Shirakawa, in order to enable high-speed retrieval and display of any selected image that is recorded on the storage device (See Shirakawa column 6 lines 39-41, column 8 lines 62-63, and column 26 lines 11-14).

Regarding claim 25, each of the media blocks (e.g. video segments or GOPs) may be viewed without reference to data regarding other frames (e.g. each video segment begins with an I-frame, which may be viewed without reference to data regarding other frames).

Claim 26 contains the limitations of claims 9 and 24 and is analyzed as previously discussed with respect to those claims.

Claim 27 contains the limitations of claims 9 and 25 and is analyzed as previously discussed with respect to those claims.

Claim 28 contains the limitations of claims 16 and 24 and is analyzed as previously discussed with respect to those claims.

Claim 29 contains the limitations of claims 16 and 25 and is analyzed as previously discussed with respect to those claims.

Claim 30 contains the limitations of claims 17 and 24 and is analyzed as previously discussed with respect to those claims.

Claim 31 contains the limitations of claims 17 and 25 and is analyzed as previously discussed with respect to those claims.

Regarding claim 50, "the distributed blocks of media are viewable from any point in one of the blocks of media data" (See Shirakawa Fig. 1a; column 26 lines 11-14).

Claim 54 contains the limitations of claims 50 and 53 and is analyzed as previously discussed with respect to those claims.

Claims 34 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ottesen et al. (US005930493A) in view of Jain et al. (US006360234B2) as applied to claims 18-23, 32, 33, 35-38, 40, and 41 above, and further in view of Fries (US006317885B1).

Regarding claim 34, Ottesen in view of Jain does not disclose "meta-data identifying channel information".

Fries discloses an interactive entertainment and information system that reads meta-data and takes action based on the information contained in the meta-data. The meta-data contains various information, e.g. the digital channel or "channel information" that corresponds to the content being used by the user (See column 9 lines 32-42). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the meta-data disclosed by Ottesen in view of Jain to

include "channel information", as taught by Fries, in order to increase the efficiency of the system by enabling the system to quickly locate the channel.

Claim 39 contains the limitations of claims 34 and 37 and is analyzed as previously discussed with respect to those claims.

Claims 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ottesen et al. (US005930493A) in view of Milewski et al. (US006289346B1).

Claim 42 contains the limitations of claim 1 and is analyzed as previously discussed with respect to that claim. However, Ottesen does not disclose that the "address determined by the storage manager is identifiable using a URL".

Milewski et al. (Milewski) discloses a book marking system that is able to mark archived information about programs the user is interested in. If the program is archived, the address of the archived program on the database is transmitted to the user, wherein the address is a URL or "address determined by the storage manager is identifiable using a URL" (See column 2 lines 44-65). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the multimedia server disclosed by Ottesen to identify the address of stored programs as a URL, as taught by Milewski, in order to provide a more well known addressing system thereby making it easier for the user to locate various programs.

Claim 43 contains the limitations of claims 9 and 42 and is analyzed as previously discussed with respect to those claims.

Claims 58, 59, 61, 62, 64, 65, 67, and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ottesen et al. (US005930493A) in view of Hokanson (US006094680A).

Claim 58 contains the limitations of claim 57 and is analyzed as previously discussed with respect to that claim. Inherently the servers disclosed by Ottesen have a cost associated with it. However, Ottesen does not disclose selecting a server that has a lower cost relative to the other servers for distributing data.

Hokanson discloses a system and method for managing distributed resources on networks. Hokanson discloses multiple servers (See Fig. 1) and judges which server will provide the requested resources based on cost/availability parameters. The system chooses the server that has the best cost/availability parameters or "lower cost relative to other servers" (See column 7 lines 43-67). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the system disclosed by Ottesen to select a server that has lower costs relative to the other servers for distributing data, as taught by Hokanson, in order to maximize profits and increase the efficiency of the system.

Regarding claim 59, the "cost is indicative" of the availability of bandwidth or "amount of resources need" to distribute the data (See column 7 lines 43-67).

Claim 61 contains the limitations of claims 58 and 60 and is analyzed as previously discussed with respect to those claims.

Claim 62 contains the limitations of claims 59 and 61 and is analyzed as previously discussed with respect to those claims.

Regarding claim 64, Ottesen in view of Hokanson also disclose various methods for archiving movies. The system stores movies "based at least upon their usage" (See Hokanson column 11 lines 5-30).

Regarding claim 65, the system also "generates multiple copies of media blocks to satisfy usage demands" (See Hokanson column 10 lines 35-50).

Claim 67 contains the limitations of claims 9 and 64 and is analyzed as previously discussed with respect to those claims.

Claim 68 contains the limitations of claims 9 and 65 and is analyzed as previously discussed with respect to those claims.

Claims 63 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ottesen et al. (US005930493A) in view of Craig (5,790,176).

Claim 63 contains the limitations of claim 1 and is analyzed as previously discussed with respect to that claim. However, Ottesen does not disclose archiving "media blocks based at least upon their age".

Craig discloses a media server for supplying videos over a network. Craig discloses that programs that have aged to the point of not having been requested within a predetermined time period or "based at least upon their age" are removed from on-line storage and placed in archival storage (See column 9 lines 30-41). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the system disclosed by Ottesen to archive data based at least upon



their age, as taught by Craig, in order to increase storage space for high demand or new programs thereby increasing the efficiency of the system.

Claim 66 contains the limitations of claims 9 and 63 and is analyzed as previously discussed with respect to those claims.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-4, 7-48, 50-52, and 54-72 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph G. Ustaris whose telephone number is 571-272-7383. The examiner can normally be reached on M-F 7:30-5PM; Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JGU  
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CHRIS KELLEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600